

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-12 (Cancelled)

13. (New) An information recording apparatus which irradiates a laser light onto a recording medium and forms a recording mark corresponding to a recording signal, comprising:

a light source which emits the laser light;
a signal generating unit which generates a recording pulse signal for driving the light source based on the recording signal; and

a test writing unit which drives the light source based on the recording pulse signal and executes test writing,

wherein the recording pulse signal includes a mark period for forming the recording mark and a space period for forming no recording mark, and

wherein the test writing unit executes the test writing with making a recording power of a long mark constant and varying a recording power of a short mark.

14. (New) The information recording apparatus according to claim 13, wherein the recording power of the long mark is a recording power ensuring reproduction compatibility.

15. (New) The information recording apparatus according to claim 14, wherein the recording power of the long mark is a recording power making a modulation degree within a predetermined range.

16. (New) The information recording apparatus according to claim 13, wherein the recording power of the long mark is a recording power making waveform distortion equal to or smaller than a predetermined value.

17. (New) The information recording apparatus according to claim 13, wherein the recording power of the short mark is a recording power making asymmetry within a range of -0.05 to 0.15.

18. (New) The information recording apparatus according to claim 13, wherein the recording power of the short mark is a recording power making a $f\Delta$ value of 0.

19. (New) The information recording apparatus according to claim 13, wherein the test writing unit reads a recording mark formed by the test writing, and repeats the test writing until asymmetry and/or a $f\Delta$ value obtained based on the read recording mark satisfies a predetermined condition.

20. (New) The information recording apparatus according to claim 13, wherein the short mark is a shortest mark and the long mark is a mark other than the short mark.

21. (New) The information recording apparatus according to claim 13, wherein the short mark is a shortest mark and a second shortest mark, and the long mark is a mark other than the short mark.

22. (New) The information recording apparatus according to claim 13, wherein the short mark is a mark which does not have a level of no largest magnitude, and the long mark is a mark which has a level of largest magnitude.

23. (New) An information recording method which irradiates a laser light onto a recording medium and forms a recording mark corresponding to a recording signal, comprising:

a signal generation process which generates a recording pulse signal for driving a light source based on the recording signal; and

a test writing process which drives the light source based on the recording pulse signal and executes test writing, wherein the recording pulse signal includes a mark period for forming the recording mark and a space period for forming no recording mark, and

wherein the test writing process executes test writing with making a recording power of a long mark constant and varying a recording power of a short mark.

24. (New) A computer program product in a computer-readable medium executed in an information recording apparatus which comprises a light source and irradiates a laser light onto a recording medium to form a recording mark corresponding to a recording signal, and the program making the information recording apparatus execute:

a signal generating process which generates a recording pulse signal for driving the light source based on the recording signal; and

a test writing process which drives the light source based on the recording pulse signal and executes test writing, wherein the recording pulse signal includes a mark period for forming the recording mark and a space period for forming no recording mark, and

wherein the test writing process executes test writing with making a recording power of a long mark constant and varying a recording power of a short mark.